

How to Nail Shifts and Big Leaps More Consistently

Description

Whether you sing or play an instrument, I'm guessing that on your music stand right now, there is at least one piece with a scary shift or big leap in it that stresses you out when you see it coming.

Where once you start thinking about it, your muscles start to tighten up, and you find yourself micromanaging or overcontrolling the details, which often just leads to a miss.

I think this a pretty common bugaboo for many musicians, so when I heard violinist [Laurie Smukler](#) talk about how important it is to not just practice getting from point A to point B, but to practice shifting *in rhythm*, my ears perked up, and I was intrigued.

In other words, a successful shift or leap isn't just about arriving at your desired destination. It's about ensuring a smooth journey from one note to the next. Because a smooth journey is going to maximize the likelihood of an accurate, on-time arrival.

And how do we do this?

Well, it turns out that golfers, soccer, and tennis players have been working on improving their "rhythmicity" for years! And they use a tool that is probably already in your case or bag.

The good ol' metronome.

Wait...how's that now?

Better rhythm and timing = more precise execution?

Anecdotally, there are many golfers who say that the timing and rhythm of one's golf swing is an important predictor of accuracy and consistency. That if you can get a nice rhythm down, you can hit the ball better.

Which makes sense in music too, right? In that an inconsistent, herky jerky shift is probably not going to be very accurate or reliable.

But at the time, there wasn't much research looking into whether this was really true or not.

So, a pair of Swedish researchers ([Sommer & Rönngvist, 2009](#)) recruited 26 golfers¹ to test it out.

The golf test

The first step, was to test all the golfers on a) their golfing ability, and b) their sense of rhythm and timing.

The golf test involved hitting 60 shots in a golfing simulator, using three different clubs² And yes, “golfing simulator” sounds pretty unrealistic, but the one they used is actually a pretty good simulation of the real thing. It’s basically a little hitting area, with a screen, projector, and bunch of sensors, that lets you see a fairway and hole, use a real club, and hit a real ball.

When you hit the ball, the sensors pick up the speed and direction of the ball, and project it onto the screen so you can watch the virtual version of the ball fly off into the distance and land where it would have if you were on a real course. Not exactly the same, but accuracy-wise, it’s about 99% there.

Anyhow, the researchers measured the distance between the ball’s final resting spot and the hole, as well as the club head speed of each swing, so they could see how much variation there was from one swing to the next. Because in theory, the more consistent the swing speed, the more consistent their shots are likely to be.

The rhythm test

Then, came the rhythm test. This was done using a system called the Interactive Metronome. It’s a combination of sensors and a software system that measures how accurately you can tap out rhythms with your hands and feet. Think [Dance Dance Revolution](#) but with hands too, and you’ve got the idea (that link is worth clicking on, by the way – it starts getting pretty insane about half-way through).

The test involves 14 different tasks, ranging from clapping your hands together to tapping a footpad, that must be synchronized perfectly (well, within 15ms) of a metronome click. The system measures how early or late you were to the hundredth of a millisecond, so you have to be incredibly precise.

Rhythm training vs. technique training

Then everyone was randomly split into two groups, and went through four weeks of training.

The **rhythm group** had three 45-50 min rhythm training sessions per week, where they practiced clapping their hands while standing on a balance board, hitting sensors on the wall (patty-cake style), clapping their hands behind their back, and more, all to a range of metronomic beats (e.g. 45, 54, 66, and 78bpm). They got immediate feedback in the form of specific tones in their headphones if they missed a beat, as well as red/yellow/green colored lights on a screen (like [this](#)).

The **control group** practiced their golf swings with a swing training device called the “Explanar Trainer,” twice a week for 20 minutes over the course of the same four weeks. Their training had nothing to do with

rhythm, and was oriented more towards reinforcing the right form and technique of their swing.

Four weeks later...

After their training was complete, the golfers repeated the golf shot test and the rhythm test to see what had changed.

As expected, the rhythm group's sense of timing improved – both in terms of accuracy and consistency.

And remarkably, so did their golfing performance. As a whole, the rhythm group improved from an average distance-from-hole score of 13.1 meters during the initial test to 10.5 meters (a **19%** improvement) on the second test.

The control group didn't improve much at all, going from a distance-from-hole score of 12.5 meters in the first test to 13.1 meters on the second test.

The golfers' swing speeds reflected this improvement in accuracy and consistency too. Compared to the first test, the rhythm group's swings fell within a much narrower range of speeds (i.e. more consistent) than the control group's swings, which were just as erratic as they were on the initial test.

Takeaways

All in all, it appears that better rhythm and timing could potentially help with more accurate and consistent shifts. And that improving your timing and sense of rhythm *away* from the instrument could potentially improve your accuracy and consistency *on* the instrument too.

Which made me think of eurythmics. Not [the band](#), but the rhythm/movement approach developed by Émile Jaques-Dalcroze (no idea how representative [this video](#) is, but I love how into it these guys are).

I never took any such classes growing up, so I know very little about this kind of training. But I remember speaking with a sport psychologist many years ago, who had sent one of his golfers (a top-5 ranked PGA pro at the time) to work with a eurythmics teacher in an effort to hone the rhythm of his swing. Given that, and studies like the one above, perhaps eurythmics could be a helpful addition to more musicians' training?

Pitch accuracy vs timing accuracy

In the meantime, I also wonder if this suggests that there could indeed be a benefit in practicing not just the pitch accuracy of shifts and leaps, but also practicing for precise *timing* accuracy with a metronome. For instance, by using a metronome with the [Yost shifting exercises](#) that I ~~loved so much~~ did as a kid.

After all, I've seen videos of golfers practicing their swings with a metronome, so maybe musicians would benefit from the same approach, working to give difficult shifts a memorable rhythm of their own, thereby

improving the precision and consistency of pitch.

Whether you're a fan of metronome practice or not, the next time a shift is threatening to get the better of you, try make shifting in rhythm a game. See how good you can get at nailing that shift or leap when you redirect some of your focus away from the destination and instead towards ensuring a smooth journey at 50bpm, and then 63, then 79 (or whatever makes sense for that moment).

The art and science of practicing

It turns out that there are a lot of little overlaps between things that musicians have said for ages, and what the research suggests about what works (and what doesn't) that can make practicing not only more effective, but a lot more fun too. A joy that can transfer to the stage too, in the form of more engaged, confident, and representative performances.

So whether you're an adult learner looking to play more like yourself in lessons, a young musician preparing for college or grad school auditions, a professional musician wanting to play more consistently in auditions, or a teacher seeking to help their students experience more joy in the practice room and on stage, I'll be teaching a [live, online, 5-week class](#) on the most essential mental skills that can make a difference in one's practicing and performing. The first class is on Sunday, January 22nd, and registration is **open for a couple more days – through Monday, Jan. 16th**.

What you'll learn

We'll meet once a week via Zoom and go through the relevant research in four essential psychological skill areas, test out a range of exercises and techniques together as a group, and to make sure the ideas don't just stay in your head, but actually become consistent habits, I'll show you how to gently integrate these new skills into your (or your students') daily practice through manageable, bite-sized practice challenges.

There will also be separate learner and educator tracks, depending on whether you'd like to learn the skills for yourself, or learn them for yourself and teach them to your own students, plus private group areas and a forum to make it easier to compare notes and connect with a supportive group of accountability buddies from around the world.

There are a couple more days remaining to join the group – as registration closes on **Monday, Jan. 16th** at 11:59pm (Pacific).

Over 1000 musicians, educators, and students and learners ranging from age 12-70+ have benefited from the course to date. You can find out what alumni are saying, and sign up to join the new cohort below:

[Join Performance Psych Essentials](#)

References

Sommer, M., & Rönqvist, L. (2009). Improved motor-timing: effects of synchronized metro-nome training on golf shot accuracy. *Journal of Sports Science and Medicine*.

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